

## **REMARKS**

Reconsideration and allowance of the above-referenced application are respectfully requested.

Applicants have timely filed a Request for Continued Examination (RCE) along with this Amendment, including the filing fee as set forth in 37 CFR 1.17(e). Accordingly, Applicants respectfully request that the Examiner withdraw the finality of any Office action and enter this Amendment for consideration under 37 CFR 1.114.

### **I. STATUS OF THE CLAIMS**

None of the claims are amended herein. New claim 13 has been added.

In view of the above, it is respectfully submitted that claims 1-13 are currently pending and under consideration.

### **II. REJECTION OF CLAIMS 1-12 UNDER 35 U.S.C. § 101**

The Examiner maintains that claims 1-12 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Applicant's disagree with the Examiner's statements in section 5.6.1.2 on page 4 of the Office Action. In fact, the Examiner's statement that "although a simulation device is known to produce or output a result, it *does not necessarily* output a result" is evidence that a simulation device *can* output a result (emphasis added). Based on the Examiner's circular statements, it appears the Examiner attempts to change the scope of the Applicant's invention. The claimed invention clearly recites that the simulation apparatus comprises an output device which calculates a receiving characteristic of an object and then outputs the receiving characteristic of the object.

The Examiner alleges that the claims recite merely an abstract idea. Independent claims 1 and 6-12 recite the feature of "outputting the receiving characteristic," and independent claim 5 recites the feature of "outputting the directivity characteristic." The mere result of outputting a "characteristic" for a simulation apparatus provides a useful, concrete, and tangible result. Claims 1 and 5-12 recite either a simulation apparatus for simulating, a computer-readable storage medium on which is recorded a program process for controlling and enabling a computer to simulate, a process of simulating, or a method of simulating within the technological arts, thereby providing a useful, concrete, and tangible result.

MPEP § 2106 states that subject matter outside patentable statutory subject matter is limited to abstract ideas, laws of nature, and natural phenomena, where the claimed subject

matter is not a *practical application or use* of an idea, a law of nature or a natural phenomena. Thus, a claim to an “abstract idea” is non-statutory when it does not represent a practical application of the idea. A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result (see, MPEP § 2106).

As recited in independent claim 1, for example, the simulation apparatus comprises an output device which calculates a receiving characteristic of an object and then outputs the receiving characteristic of the object. A simulation device is known to produce or output a result. Accordingly, a concrete, tangible and useful result is achieved not only by calculating a receiving characteristic of an object but also by outputting the receiving characteristic of the object. (see, State Street Bank & Trust Co. v. Signature Financial Group Inc., 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998)).

Therefore, it is respectfully submitted that because independent claims 1 and 5-12 and dependent claims dependent therefrom satisfy the requirements of 35 USC §101, withdrawal of the rejection is requested.

In view of the above, it is respectfully requested that the rejection is overcome.

### **III. REJECTION OF CLAIMS 1-12 UNDER 35 U.S.C. § 103(A)**

The Examiner maintains that the combination of Nishino, Otsu, and Cheng discloses the claimed invention.

However, Nishino does not disclose or suggest “a first current calculation device calculating current values of the generation source using simultaneous equations of the generation source when the generation source is divided into a plurality of elements, the simultaneous equations of the generation source having currents that flow through respective elements as unknowns,” “a current storage device storing the current values of the generation source,” and “a second current calculation device calculating current values of the object using simultaneous equations of the object when the object is divided into a plurality of elements and a positional relationship between the generation source and object changes, the simultaneous equations of the object having currents that flow through respective elements as unknowns and the current values stored in the current storage device as constants.”

The Examiner continues to rely on features in the Nishino reference that are not the same as the claimed “first current calculation device,” “current storage device,” and “second current calculation device” (see page 12, sections 9.5.1 through 9.5.3 of the Office Action). For example, the Examiner alleges that the features in column 7, lines 7-9 of the Nishino is analogous to the claimed “first current calculation device.”

Yet, in column 7, lines 7-9, Nishino discloses that “the first calculation unit 12 calculates the current distribution in the applicable sections of the electronic circuit device by applying the distributed constant circuit method.” It is evident from this feature that Nishino fails to disclose or suggest “a first current calculation device calculating current values of the generation source using simultaneous equations of the generation source when the generation source is divided into a plurality of elements, the simultaneous equations of the generation source having currents that flow through respective elements as unknowns.” As further evidence that Nishino is not concerned with calculating current values of a generation source, Nishino clearly discloses that “the **wavesources**, which are induced by the current, **are not taken into account** because the currents are very small in the inapplicable section” (see column 7, lines 19-21, emphasis added).

Thus, the Examiner’s allegations on page 12, sections 9.5.1 through 9.5.3 of the Office Action are erroneous.

With regard to the features of the present invention in which a check is made to determine whether a distance between a transmitting antenna (a source) and a EUT (an object) is greater than or equal to a prescribed threshold distance, the Examiner makes a broad conclusory statement in section 6.8.2 on page 7 of the Office Action.

The Examiner asserts, “Cheng recites that the transmitting and receiving antennas need to be separated by very large distances in order for the coupling impedance to be neglected as far as the reaction on the transmitting antenna owing to scattering by the receiving antenna, and therefore, there would have been a check for separation distance between the source and the receiving object to ensure that the equations were applicable.”

Here, the Examiner relies on broad conclusory statements, subjective belief, and unknown authority in his assertions because none of the features of the present invention are disclosed or suggested by Cheng. Cheng does not disclose or suggest that if a threshold is met, the calculation of source current values using a first set of simultaneous equations and the storing of these current values as constants is performed.

MPEP § 2142 states that “[w]hen the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper.” The Examiner is required to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not “evidence.” Dembiczak, 50 USPQ2d at 1617. “The factual inquiry whether to combine the references must be thorough and searching.” In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 60 USPQ2d

1001, 1008 (Fed. Cir. 2001)). The factual inquiry must be based on objective evidence of record, and cannot be based on subjective belief and unknown authority. Id. at 1433-34. The Examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

The Examiner has not presented any evidence why Nishino, Otsu, and Cheng would have been combined. The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP § 2143.01. Specifically, there must be a suggestion or motivation in the references to make the combination or modification. Id. The Examiner's sole support for such a combination is "the common suggestion in both Otsu and Nishino of the ability to calculate at a high speed the electromagnetic fields radiated from an electronic device...which would have been recognized by the ordinary artisan as a computational benefit to save time" (see section 9.10 on page 17 of the Office Action) and "the calculation benefit shown in Cheng that the currents in the transmitting and receiving antennas can be calculated separately because the back reaction of the receiving antenna on the transmitting antenna can be set to zero...which would have been recognized by the ordinary artisan as providing a computational time saving benefit" (see section 9.11 on page 17 of the Office Action).

The Examiner cannot rely on the benefit of the combination without first supporting the motivation to make the combination. Such motivation does not appear anywhere in either of the references, and the Examiner has not presented any actual evidence in support of the same. Instead, the Examiner relies on broad conclusory statements, subjective belief, and unknown authority. Such a basis does not adequately support the combination of references; therefore, the combination is improper and must be withdrawn.

Accordingly, it is submitted that none of the cited prior art references, either alone or in combination, discloses or suggests the features as recited in claims 1-12 of the present invention.

In view of the above, it is respectfully submitted that the rejection is overcome.

#### **IV. NEW CLAIM**

New claim 13 has been added. None of the cited prior art, alone or in combination, discusses or suggests:

a first current calculation device calculating the current value of the transmitting antenna by solving a first set of simultaneous equations, each equation in the first set representing a current of each of a plurality of elements composing the transmitting

antenna, and storing the representative current values;

a second current calculation device extracting the stored current values, when a relative position between the transmitting antenna and receiving antenna is changes, generating a second set of simultaneous equations, each equation in the second set representing a current of each of a plurality of elements composing the receiving antenna, calculating the current value of the receiving antenna by solving the second set of simultaneous equations, and outputting the values;

an output device receiving the output values from the second current calculation device and calculating the receiving characteristic of the receiving antenna using the output values and outputting the receiving characteristic, wherein

a coefficient matrix of the first set of simultaneous equations is composed of only mutual impedance between the elements of the transmitting antenna, and

a coefficient matrix of the second set of simultaneous equations is composed of only mutual impedance between the elements of the receiving antenna,

as recited in new claim 13. Thus, it is submitted that claim 13 is in a condition suitable for allowance.

## V. CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 8-23-07

By: 

Aaron C. Walker  
Registration No. 59,921

1201 New York Avenue, NW, 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501